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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,964	01/29/2002	Kenny Hsiao	SUND 253	3533

7590 01/12/2007

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EXAMINER
HASAN, SYED Y

ART UNIT	PAPER NUMBER
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/057,964	HSIAO ET AL.	
	Examiner	Art Unit	
	Syed Y. Hasan	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1- 23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 – 5, 7 – 12, 14 – 15, and 17 - 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hong et al (US 5532833) in view of Nakatani et al (US 6118924).

Regarding claim 1, Hong et al discloses, a method for capturing video data into a computer system, the method comprising the following steps:

(a) reading the video data (fig 3, 21, col 4, lines 17 – 19, 21 is a motion video image reproducing means, and includes laser disk player (hereinafter LD player))

(b) detecting the video data to estimate scene changes (fig 3, 25, col 4, line 20, 25 is an automatic scene change detector) so that an identical scene will not be split into two different files (col 4, lines 49 – 56, representative frame creating means 27 determines representative frames (rf) 18 for the respective frame sequences determined from the frame number list, and fetches the still

frame video images of the representative frames from LD player 22 through analogue/digital converter 24, and creates and records a video image file in representative frame video image file 31.) and

(c) splitting the video data into a plurality of video files (col 4, lines 62- 63, the representative frame video images 18 are accumulated in representative frame video image file 31) and

(d) storing the plurality of video files (col 6, lines 10 –11, FIG. 6 is an example of the file structure for storing such motion video image information.)

Hong et al discloses all of the subject matter above, except determining file size of the video data.

Nakatani et al in the same field of endeavor teaches determining file size of the video data (figure 18, 105, column 32, lines 26 –28) further clarifying "the control unit 105 assigns an area having a size greater than the predetermined size" and (column 32, lines 39 – 41) further clarifying "the control unit 105 sends a file identifier and a parameter indicating the "time insuring" quality specified as the recording condition to the AV data recording unit 210"

It is desirable to determine the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented. Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was

made to include the design of the file size as taught by Hong et al in combination of Nakatani et al to determine the size of the video data and prevent overflow.

Regarding claim 2, Hong et al discloses, the method, wherein the step of detecting video data further comprises continuously reading video data when a scene change is not detected from the read video data (col 3, lines 49 – 53, the logical frame structure automatically detects changes in frames fl to fn in whole video image 12 and divides them into frame sequences 14 of minimum units such as A11 and A12, generating a logical frame structure of one hierarchy level as shown in (a) of FIG. 1)

Hong et al discloses all of the subject matter above, except reading video data that has a default size and is not greater than a limitation of the file system.

Nakatani et al in the same field of endeavor teaches reading video data that has a default size is not greater than a limitation of the file system (column 28, lines 59 – 63) in order to "ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently" (column 2, lines 11 – 13)

Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention so that reading video data has a default size and is not greater than a limitation of the file system as taught by Nakatani et al in the invention of Hong et al in order to ensure uninterrupted reproduction of AV data and record various types of data including AV data together and efficiently.

Regarding claim 3, Hong et al discloses, all of the subject matter above, wherein the step of continuously reading video data will be stopped when the size of the video

data is equal to the limitation of the file system

Nakatani et al in the same field of endeavor teaches the method, wherein the step of continuously reading video data will be stopped when the size of the video data is equal to the limitation of the file system (col 21, lines 53 – 60, illustrates that reading video data is stopped when the size of the video data is equal to the limitation of the file system.)

Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention so that the reading video data will be stopped when the size of the video data is equal to the limitation of the file system as taught by Nakatani et al in the invention of Hong et al in order to ensure uninterrupted reproduction of AV data.

Regarding claims 4 and 14, Hong et al discloses the method, wherein the video data comprises at least a first scene and a second scene including a plurality of frames respectively (fig 2, A11, A12 and A1, A2, A3)

Regarding claims 5 and 15, Hong et al discloses the method, wherein an interval of recording time between a frame and its adjacent frame is calculated as the estimate of scene change (col 3, lines 49 – 53, the logical frame structure automatically detects changes in frames fl to fn in whole video image 12 and divides them into frame sequences 14 of minimum units such as A11 and A12, generating a logical frame structure of one hierarchy level as shown in (a) of FIG. 1.)

Regarding claims 7 and 17, Hong et al discloses the method, wherein the difference between object characters of a frame and its adjacent frame is employed to determine whether scene change occurs (col 5, lines 2 – 4, automatic scene change

detector 25 detects scene change on the basis of a physical change or the like in the frames)

Regarding claims 8 and 18, Hong et al discloses the method, wherein frames of the first scene and frames of the second scene are split into different video files (col 3, lines 49 – 53, the logical frame structure automatically detects changes in frames fl to fn in whole video image 12 and divides them into frame sequences 14 of minimum units such as A11 and A12, generating a logical frame structure of one hierarchy level as shown in (a) of FIG. 1, further clarifying that A11 and A12 are different scenes split into different video files)

Regarding claims 9 and 19, Hong et al discloses the method, wherein frames of the same scene are stored in the same video file (col 3, lines 62 – 64, subdividing each frame sequence into arbitrary frame sequences (for instance, A into A1, A2 and A3) of shorter time, and repeating this process further clarifying that A1, A2 and A3 are frames of same scenes)

Regarding claim 10 and 20, Hong et al discloses the method, wherein the file of video data for being split is determined when a scene change is detected (col 4, lines 46 – 49, digital converter 24 detects scene changes, and outputs a list of the frame numbers of frames f in which scene change has occurred, and this list is stored in change frame number file 32 of retrieval information generating portion 26.)

Hong et al discloses all of the subject matter above, except determining file size of the video data.

Nakatani et al in the same field of endeavor teaches determining file size of the video data (figure 18, 105, column 32, lines 26 –28) further clarifying "the control unit 105 assigns an area having a size greater than the predetermined size" and (column 32, lines 39 – 41) further clarifying "the control unit 105 sends a file identifier and a parameter indicating the "time insuring" quality specified as the recording condition to the AV data recording unit 210"

It is desirable to determine the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented. Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design of the file size as taught by Hong et al in combination of Nakatani et al to determine the size of the video data and prevent overflow.

Regarding claim 11, Hong et al discloses a method for capturing video data into a computer system, wherein the computer system comprises a storage unit, the method comprising the following steps:

(a) reading a plurality of frames of the video data (fig 3, 21, col 4, lines 17 – 19, 21 is a motion video image reproducing means, and includes laser disk player (hereinafter LD player)) and (col 2, lines 24- 28, In accordance with this invention, the individual frames of motion video images are organized into a plurality of frame sequences according to physical or semantic changes in the motion video images, and motion video image information for retrieving each frame sequence is created.)

(c) detecting a scene change between the frames (fig 3, 25, col 4, line 20, 25 is an automatic scene change detector)

(d) splitting the video data into a plurality of video files (col 4, lines 62- 63, the representative frame video images 18 are accumulated in representative frame video image file 31) so that an identical scene will not be split into two different files (col 4, lines 49 – 56, representative frame creating means 27 determines representative frames (rf) 18 for the respective frame sequences determined from the frame number list, and fetches the still frame video images of the representative frames from LD player 22 through analogue/digital converter 24, and creates and records a video image file in representative frame video image file 31.) and

(e) storing the video files (col 6, lines 10 –11, FIG. 6 is an example of the file structure for storing such motion video image information.) into a storage unit (fig 3, 38, col 4, line 39, data storage means 38,)

Hong et al discloses all of the subject matter above, except estimating the file size of the video data

Nakatani et al in the same field of endeavor teaches estimating file size of the video data (figure 18, 105, column 32, lines 26 –28) further clarifying "the control unit 105 assigns an area having a size greater than the predetermined size" and (column 32, lines 39 – 41) further clarifying "the control unit 105 sends a file identifier and a parameter indicating the "time insuring" quality specified as the recording condition to the AV data recording unit 210"

It is desirable to estimate the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented. Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design of the file size as taught by Hong et al in combination of Nakatani et al to determine the size of the video data and prevent overflow.

Regarding claim 12, Hong et al discloses all of the subject matter above except the method further comprising setting up a default value of for the size of video data before said estimating file size of the video data

Nakatani et al in the same field of endeavor teaches the method further comprising setting up a default value of for the size of video data before said estimating file size of the video data (figure 18, 105, column 32, lines 26 –28) further clarifying "the control unit 105 assigns an area having a size greater than the predetermined size"

It is desirable to set up a default value for the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented.

Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design of the file size as taught by Hong et al in combination of Nakatani et al to determine the size of the video data and prevent overflow.

Regarding claim 21, Hong et al discloses a device for capturing video data stored in a tape to into a computer system, wherein the computer system comprises a storage unit, the device of digital video capture comprising:

a reading unit for reading video data; (fig 3, 21, col 4, lines 17 – 19, 21 is a motion video image reproducing means, and includes laser disk player (hereinafter LD player))

a detection unit for detecting changes of scenes; (fig 3, 25, col 4, line 20, 25 is an automatic scene change detector)

a determining unit for determining a file size to be split (col 4, lines 62- 63, the representative frame video images 18 are accumulated in representative frame video image file 31) so that an identical scene will not be split into two different files; (col 4, lines 49 – 56, Representative frame creating means 27 determines representative frames (rf) 18 for the respective frame sequences determined from the frame number list, and fetches the still frame video images of the representative frames from LD player 22 through analogue/digital converter 24, and creates and records a video image file in representative frame video image file 31.)

a splitting unit for splitting video data into a plurality of video files (col 4, lines 62-63, the representative frame video images 18 are accumulated in representative frame video image file 31) and then storing the video files into the storage unit (fig 3, col 4, line 39, data storage means 38)

Hong et al discloses all of the subject matter above, except determining file size of the video data.

Nakatani et al in the same field of endeavor teaches determining file size of the video data (figure 18, 105, column 32, lines 26 –28) further clarifying "the control unit 105 assigns an area having a size greater than the predetermined size" and (column 32, lines 39 – 41) further clarifying "the control unit 105 sends a file identifier and a parameter indicating the "time insuring" quality specified as the recording condition to the AV data recording unit 210"

It is desirable to determine the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented. Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design of the file size as taught by Hong et al in combination of Nakatani et al to determine the size of the video data and prevent overflow.

Regarding claim 22, Hong et al discloses the device, wherein the video data comprises a plurality of frames.(fig 1A, 14, A11, A12)

Regarding claim 23, Hong et al discloses the device, wherein the reading unit further comprises a memory for storing the frames temporarily (fig 3, 38, storage means)

Regarding claim 24, Hong et al discloses the device, wherein the reading unit will be used to continuously read video data (fig 3, 21, col 4, lines 17 – 19, 21 is a motion video image reproducing means, and includes laser disk player (hereinafter LD player)) when a scene change is not detected by the detection unit (col 4, lines 46 – 49, digital

converter 24 to detect scene changes, and outputs a list of the frame numbers of frames f in which scene change has occurred, and this list is stored in change frame number file 32 of retrieval information generating portion 26.)

Hong et al discloses all of the subject matter above, except determining the size of video data is not greater than a limitation of a file system.

Nakatani et al in the same field of endeavor teaches determining the size of video data is not greater than a limitation of a file system (figure 18, 105, column 32, lines 26 –28) further clarifying "the control unit 105 assigns an area having a size greater than the predetermined size" and (column 32, lines 39 – 41) further clarifying "the control unit 105 sends a file identifier and a parameter indicating the "time insuring" quality specified as the recording condition to the AV data recording unit 210"

It is desirable to determine the size of the video data to establish the recording space. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented. Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design of the file size as taught by Hong et al in combination of Nakatani et al to determine the size of the video data and prevent overflow.

Regarding claim 25, Hong et al discloses the device, wherein the reading unit is stopped from continuously reading video data when a scene change is detected by the detection unit (col 5, lines 34 – 37, a frame which is newly determined to be a representative frame is specified, for instance, by the user stopping the video image on

TV monitor 23 at a particular frame.)

Regarding claim 26, Hong et al discloses the device, wherein the determining unit determines the file size to be split when a scene change is detected by the detection unit. (col 4, lines 62- 63, the representative frame video images 18 are accumulated in representative frame video image file 31)

3. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hong et al (US 5532833) in view of Nakatani et al (US 6118924) and further in view of Wang et al (US 5805733)

Regarding claims 6 and 16, the combination of Hong et al and Nakatani et al does not disclose the method, wherein the interval between the last frame of the first scene and the first frame of the second scene is greater than the interval between 2 adjacent frames of others

Wang et al in the same field of endeavor teaches the method, wherein the interval between the last frame of the first scene and the first frame of the second scene is greater than the interval between 2 adjacent frames of others (col 3, lines 23 – 26, the summarize application 119 includes a scene change detector 121 that detects the scene changes between distinct scenes, having a minimum time duration, further clarifying that the interval between two adjacent frames will always be less than the frames having scene changes)

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention that the interval between the last frame of the first scene and the first frame of the second scene is greater than the interval between 2 adjacent frames of

others as taught by Wang et al in the invention of Hong et al and Nakatani et al in order to ensure uninterrupted recording of the scene change.

4. Claims 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hong et al (US 5532833) in view of Nakatani et al (US 6118924) and further in view of Tojo (US 2003/0086021 A1)

Regarding claim 13, Hong et al discloses detecting a scene change between the frames (fig 3, 25, col 4, line 20, 25 is an automatic scene change detector)

Hong et al does not discloses the method which continues to proceed to detecting a change between the frames when captured video data is greater than the default value, and the method goes back to said reading a plurality of frames of the video data when captured video data is less than the default value.

Tojo, however, teaches the method which continues to proceed to detecting a change between the frames when captured video data is greater than the default value, and the method goes back to said reading a plurality of frames of the video data when captured video data is less than the default value (page 2, para 0028)

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention that the method which continues to proceed to detecting a change between the frames when captured video data is greater than the default value, and the method goes back to said reading a plurality of frames of the video data when captured video data is less than the default value as taught by Tojo in the invention of Hong et al in order to ensure uninterrupted recording of the scene change.

The combination of Hong et al and Tojo does not disclose the size of the

captured video data is greater that the default value.

Nakatani et al, however teaches the size of the captured video data is greater that the default value (figure 18, 105, column 32, lines 26 –28) further clarifying "the control unit 105 assigns an area having a size greater than the predetermined size"

It is desirable to set up the size of the captured video data greater that the default value. The reason for this is that estimating the size of the video file and storing them as whole video files ensures appropriate capture of the entire scene so that efficient use of the file size is established and the overflow of data is prevented.

Therefore it would have been obvious to one of the ordinary skill in the art at the time the invention was made to include the design of the file size as taught by Nakatani et al in the combination of Hong et al in and Tojo to determine the size of the video data and prevent overflow.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed Y. Hasan whose telephone number is 571-270-1082. The examiner can normally be reached on 9/8/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.Y.H.

1/3/2007